

Fig. 1

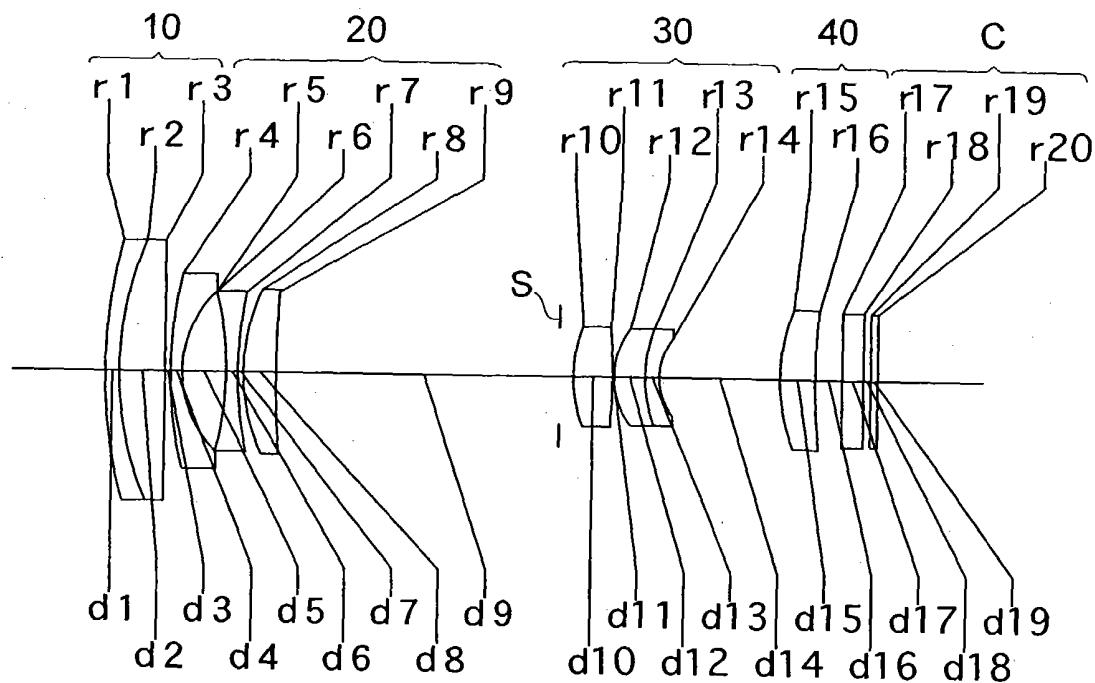


Fig. 2A

$F_{No.} = 1:2.8$

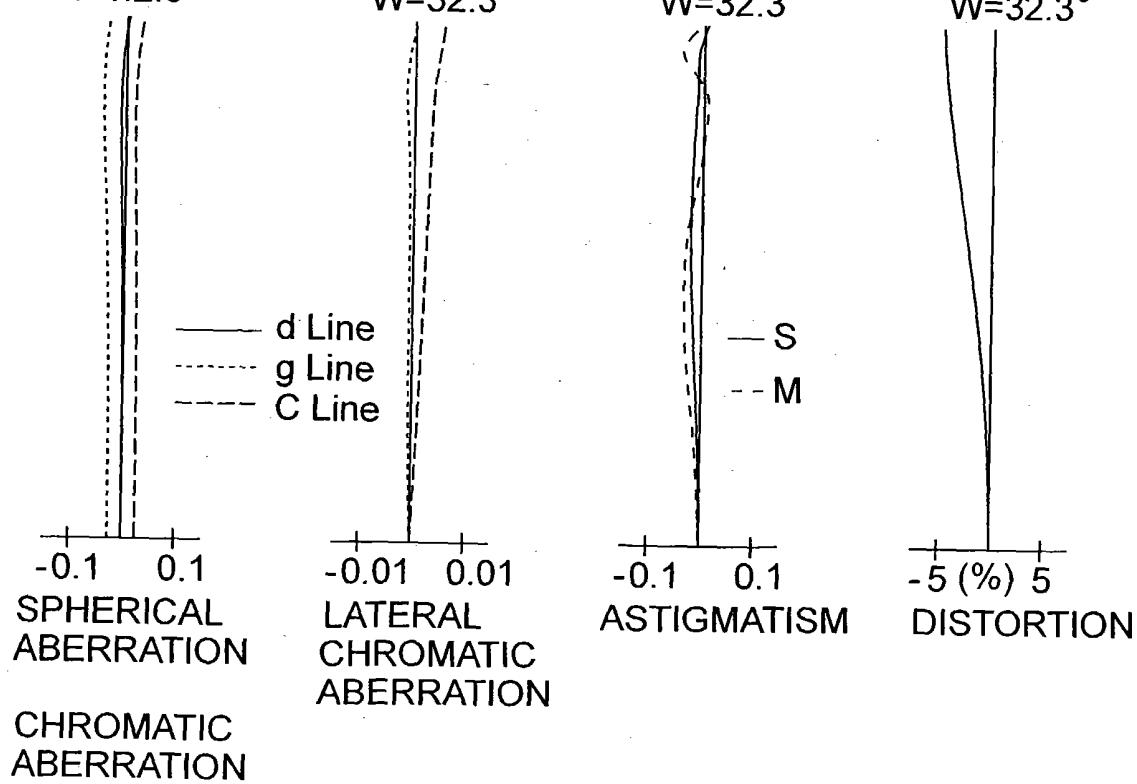


Fig. 2B

$W = 32.3^\circ$

Fig. 2C

$W = 32.3^\circ$

Fig. 2D

$W = 32.3^\circ$

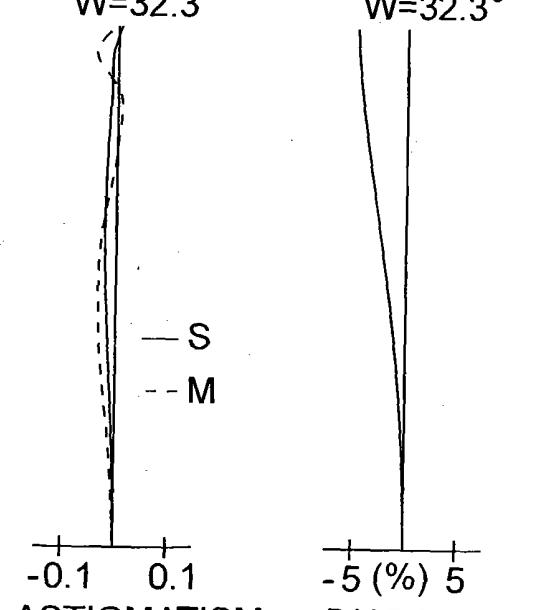


Fig. 3A

$F_{NO}=1:3.2$

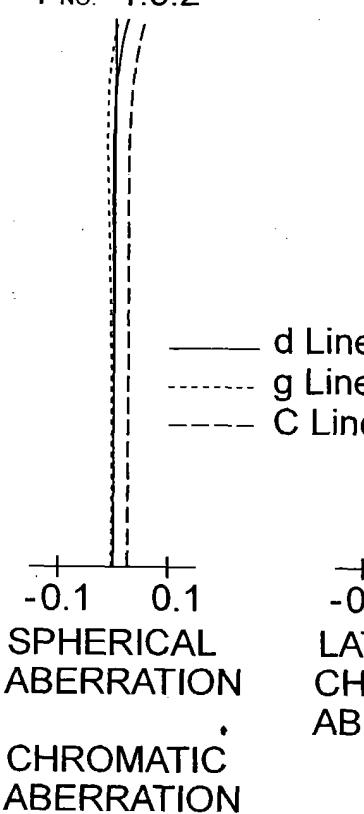


Fig. 3B

$W=21.4^\circ$

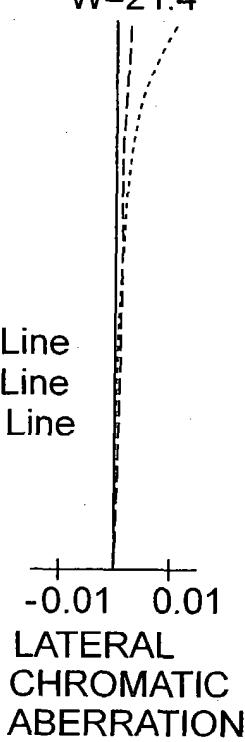


Fig. 3C

$W=21.4^\circ$

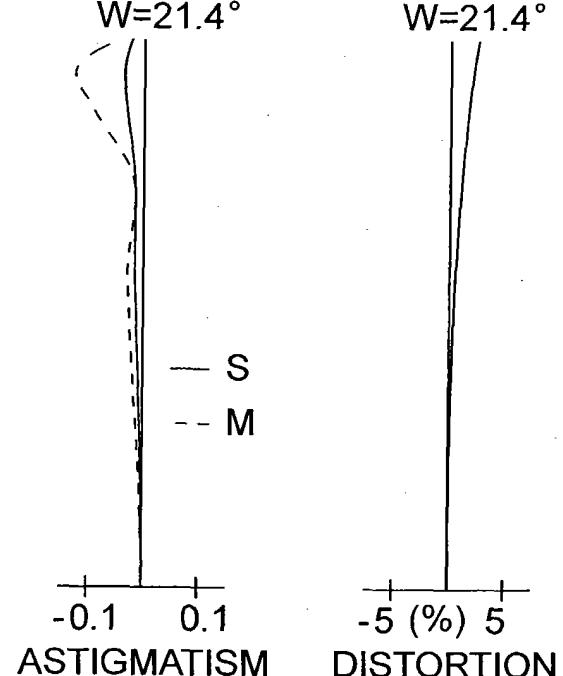


Fig. 3D

$W=21.4^\circ$

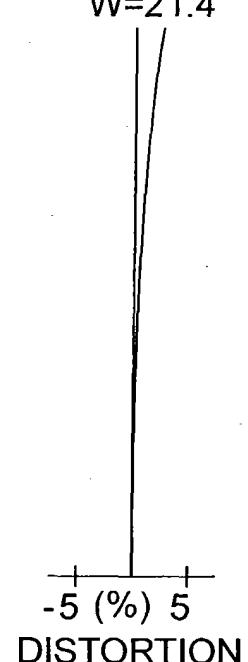


Fig. 4A

$F_{NO}=1:3.6$

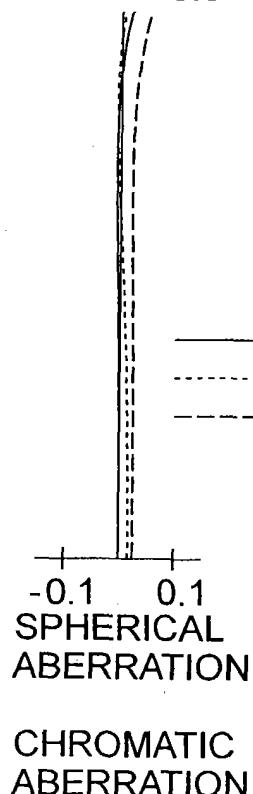


Fig. 4B

$W=14.1^\circ$

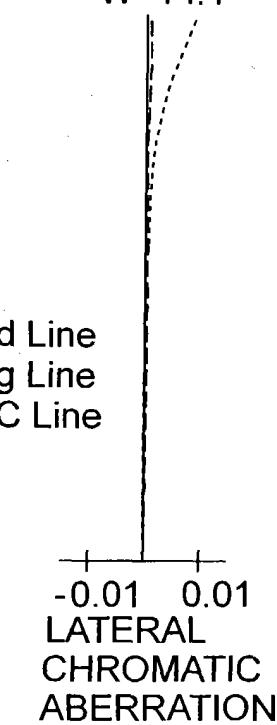


Fig. 4C

$W=14.1^\circ$

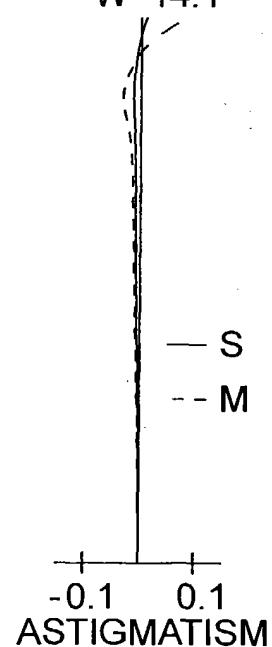


Fig. 4D

$W=14.1^\circ$

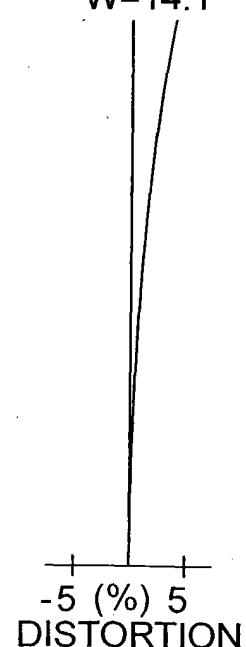
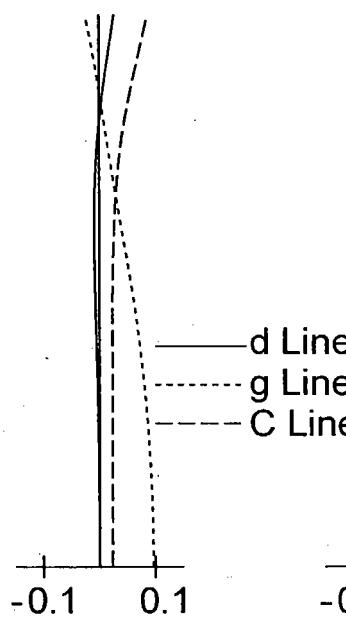


Fig. 5A

$F_{NO}=1:4.7$

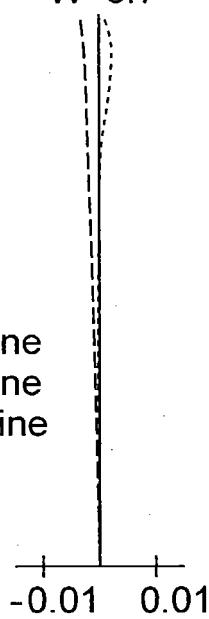


SPHERICAL
ABERRATION

CHROMATIC
ABERRATION

Fig. 5B

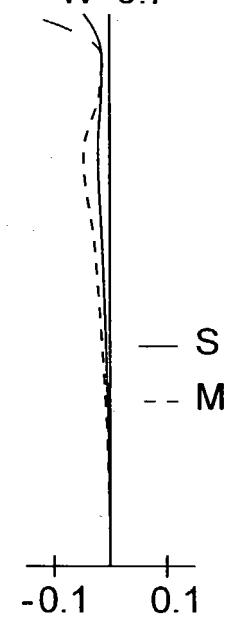
$W=6.7^\circ$



LATERAL
CHROMATIC
ABERRATION

Fig. 5C

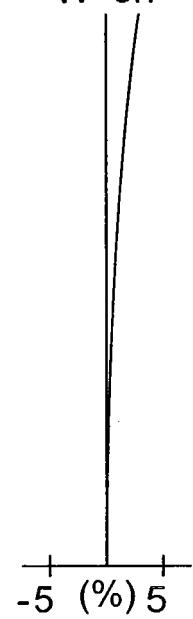
$W=6.7^\circ$



ASTIGMATISM

Fig. 5D

$W=6.7^\circ$



DISTORTION

Fig. 6

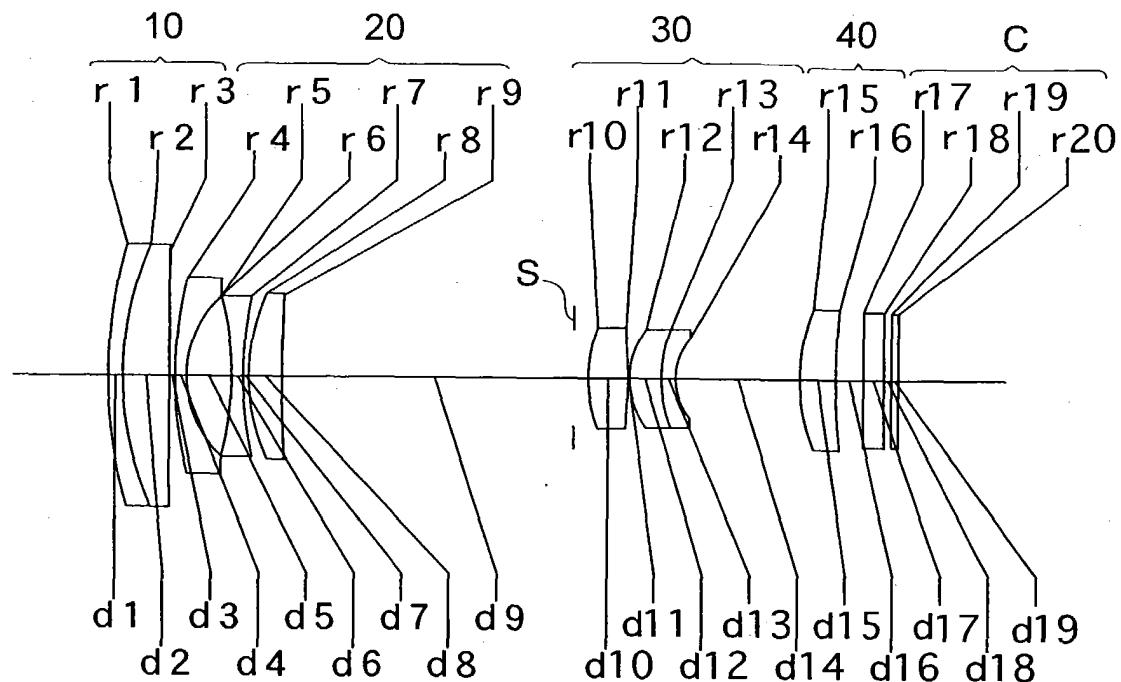
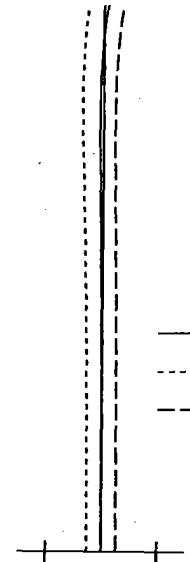


Fig. 7A

$F_{No.} = 1:2.8$

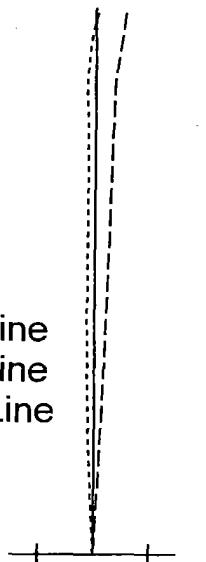


-0.1 0.1
SPHERICAL
ABERRATION

CHROMATIC
ABERRATION

Fig. 7B

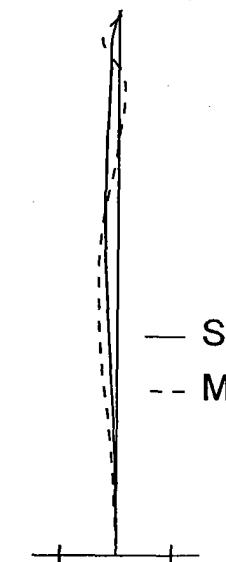
$W = 32.3$



-0.01 0.01
LATERAL
CHROMATIC
ABERRATION

Fig. 7C

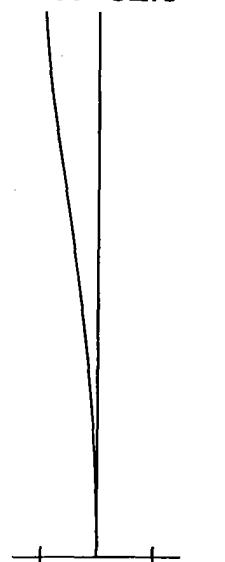
$W = 32.3$



-0.1 0.1
ASTIGMATISM

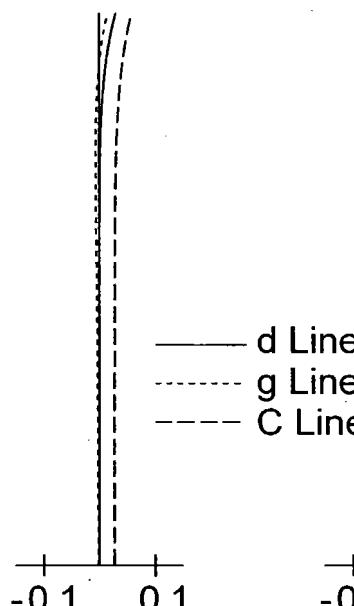
Fig. 7D

$W = 32.3$



-5 (%) 5
DISTORTION

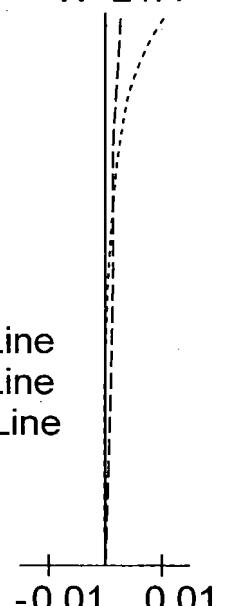
Fig. 8A
 $F_{NO.}=1:3.3$



SPHERICAL
ABERRATION

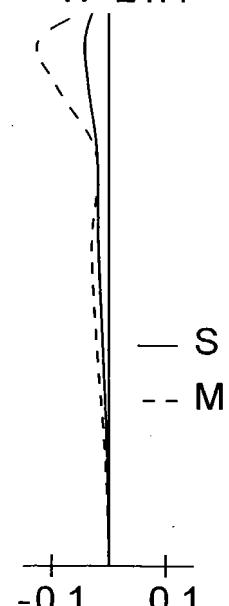
CHROMATIC
ABERRATION

Fig. 8B
 $W=21.4^\circ$



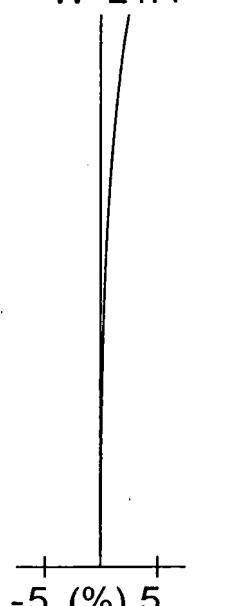
LATERAL
CHROMATIC
ABERRATION

Fig. 8C
 $W=21.4^\circ$



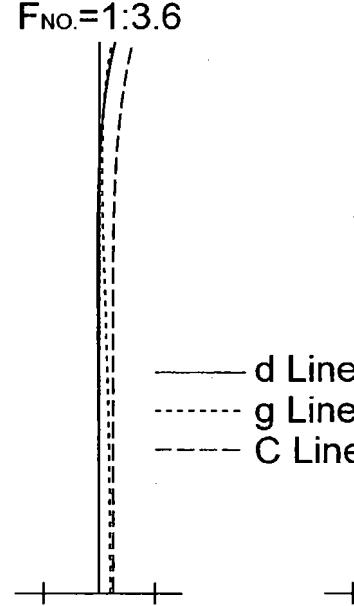
ASTIGMATISM

Fig. 8D
 $W=21.4^\circ$



DISTORTION

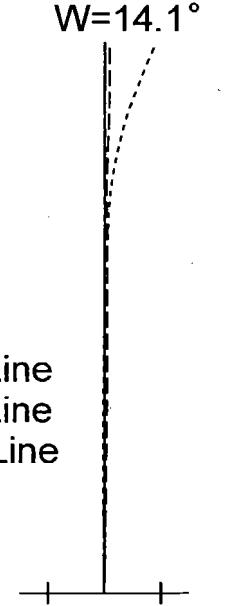
Fig. 9A
 $F_{NO.}=1:3.6$



SPHERICAL
ABERRATION

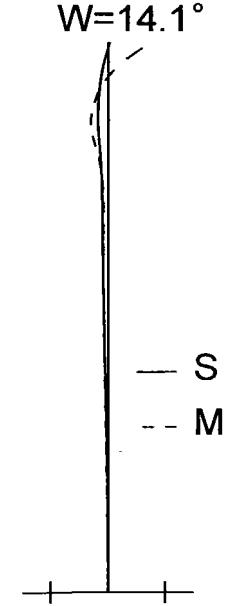
CHROMATIC
ABERRATION

Fig. 9B
 $W=14.1^\circ$



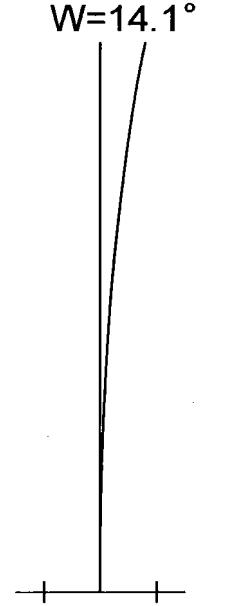
LATERAL
CHROMATIC
ABERRATION

Fig. 9C
 $W=14.1^\circ$



ASTIGMATISM

Fig. 9D
 $W=14.1^\circ$



DISTORTION

Fig. 10A

$F_{NO}=1:4.6$

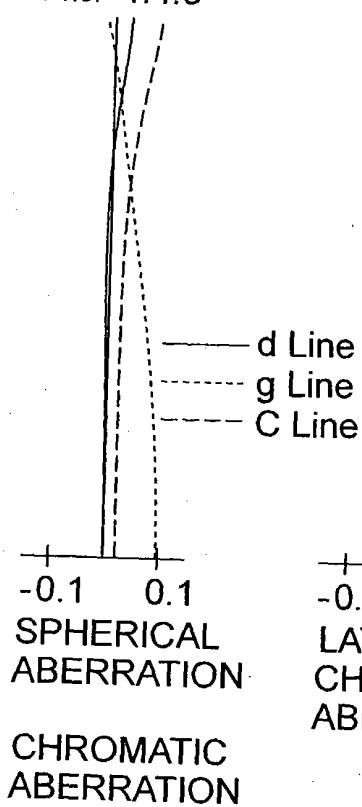


Fig. 10B

$W=6.7^\circ$

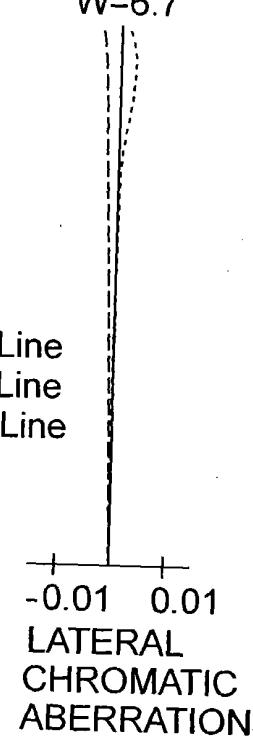


Fig. 10C

$W=6.7^\circ$

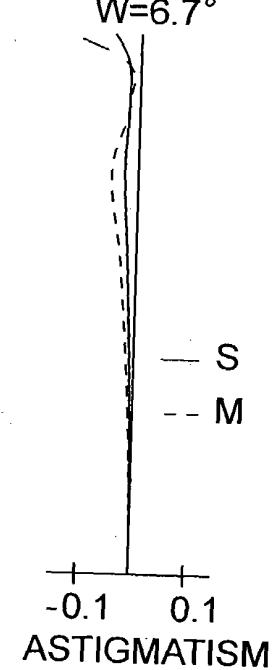


Fig. 10D

$W=6.7^\circ$

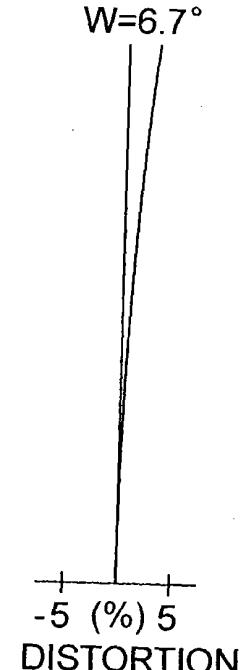


Fig. 11

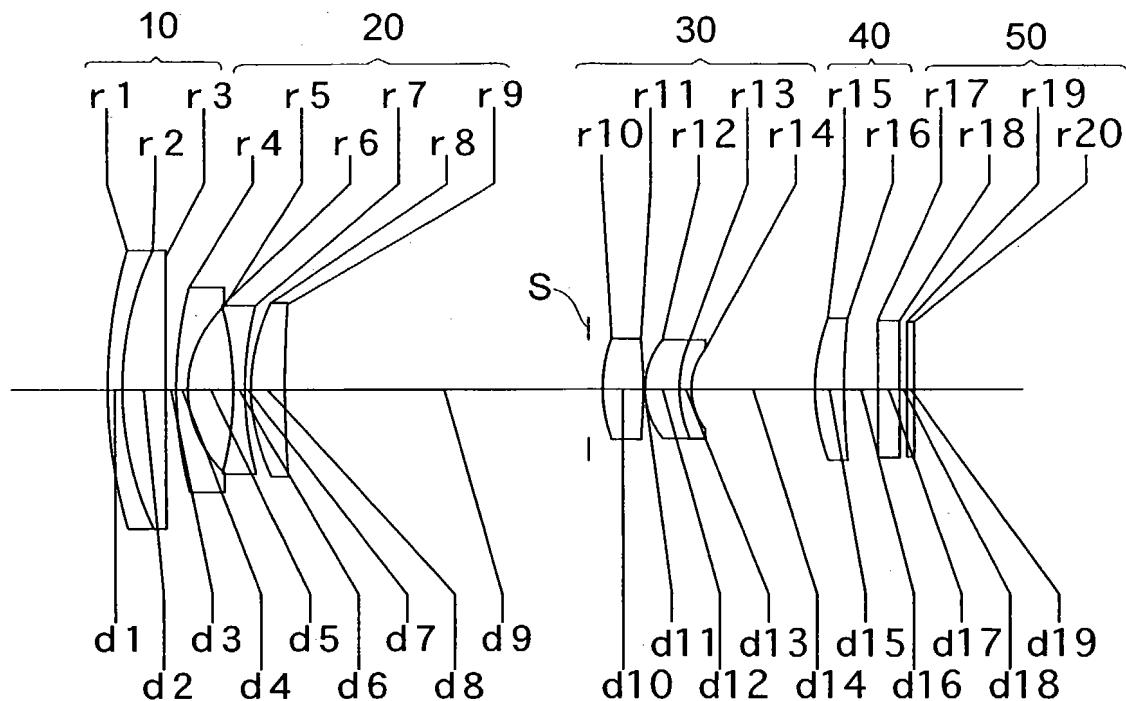
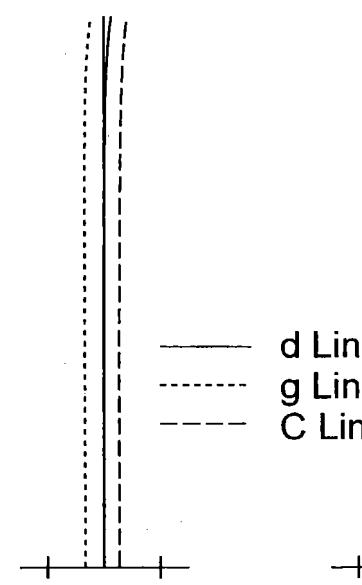


Fig. 12A

$F_{NO}=1:2.8$

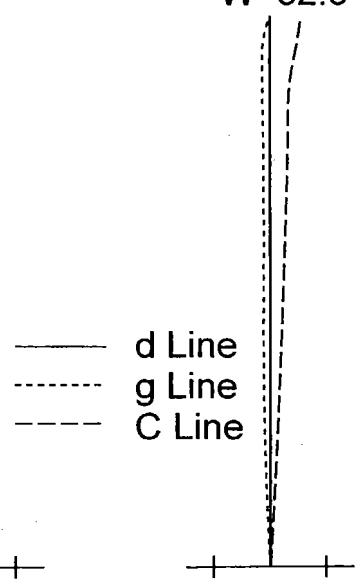


SPHERICAL
ABERRATION

CHROMATIC
ABERRATION

Fig. 12B

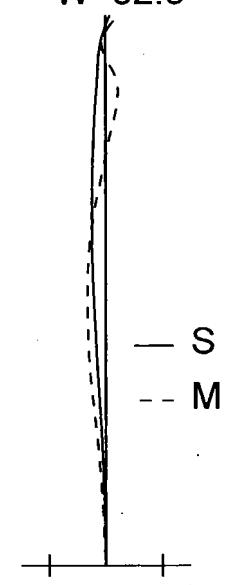
$W=32.3^\circ$



LATERAL
CHROMATIC
ABERRATION

Fig. 12C

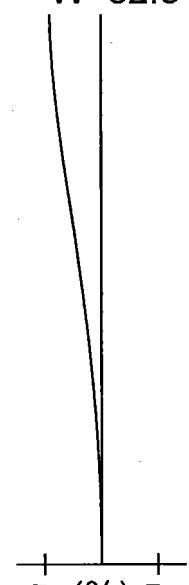
$W=32.3^\circ$



ASTIGMATISM

Fig. 12D

$W=32.3^\circ$



DISTORTION

— d Line
- - - g Line
- - - C Line

— S
- - M

Fig. 13A

$F_{NO}=1:3.2$

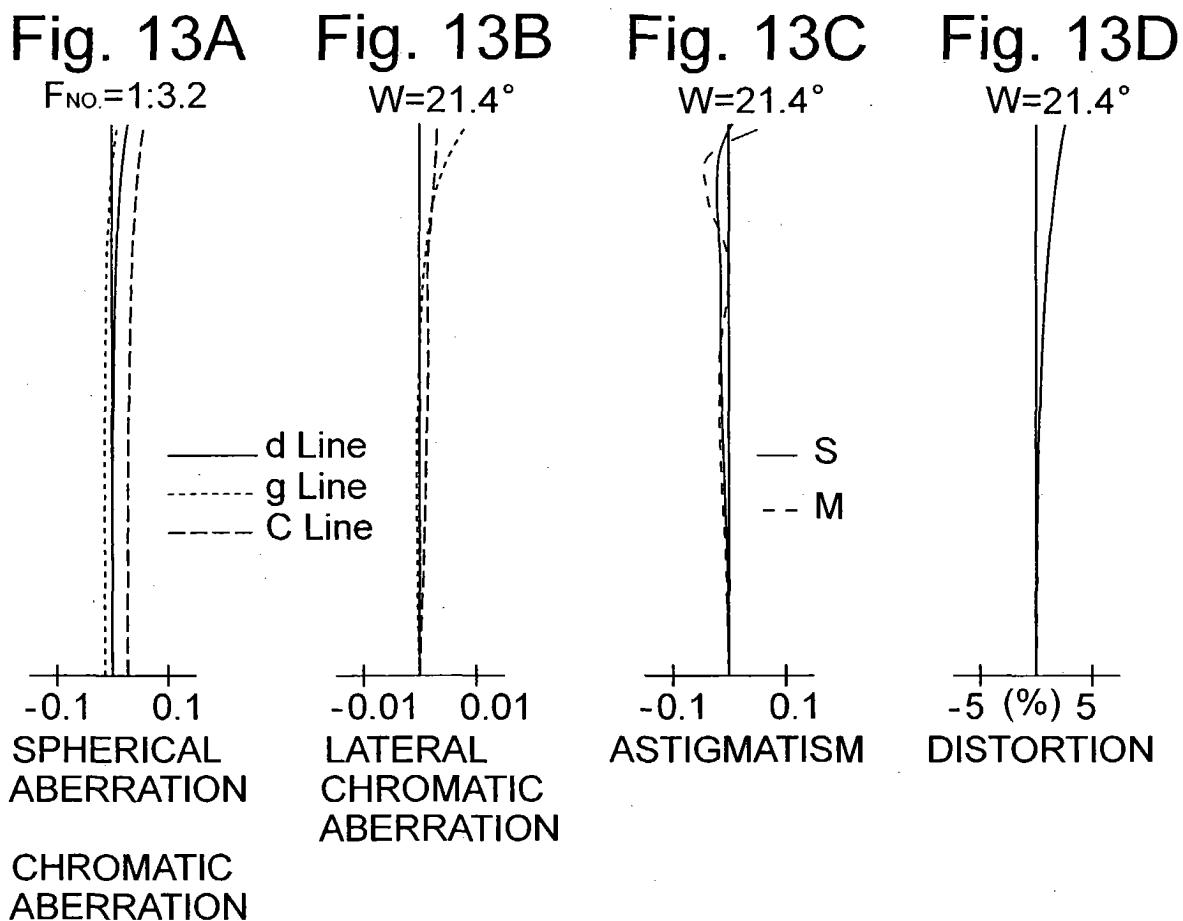


Fig. 13B

$W=21.4^\circ$

Fig. 13C

$W=21.4^\circ$

Fig. 13D

$W=21.4^\circ$

Fig. 14A

$F_{NO}=1:3.6$

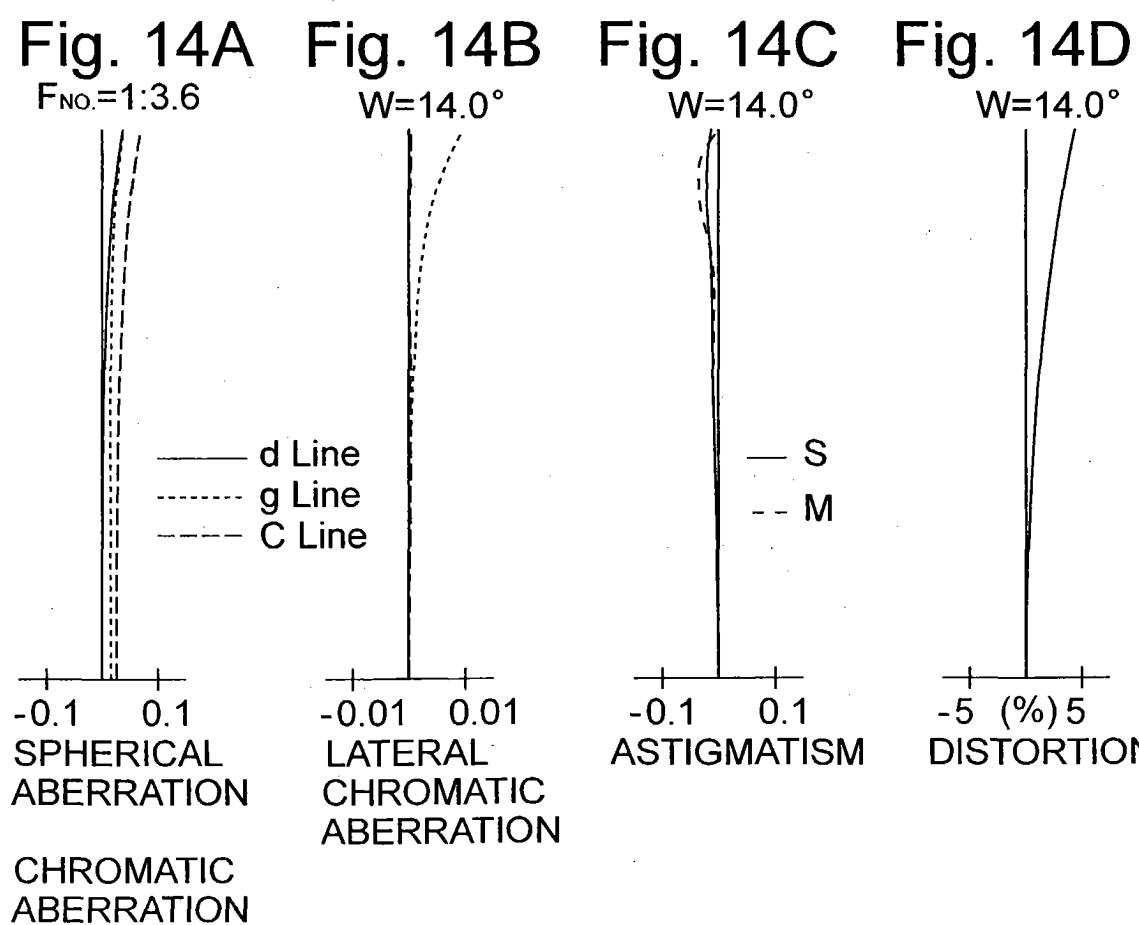


Fig. 14B

$W=14.0^\circ$

Fig. 14C

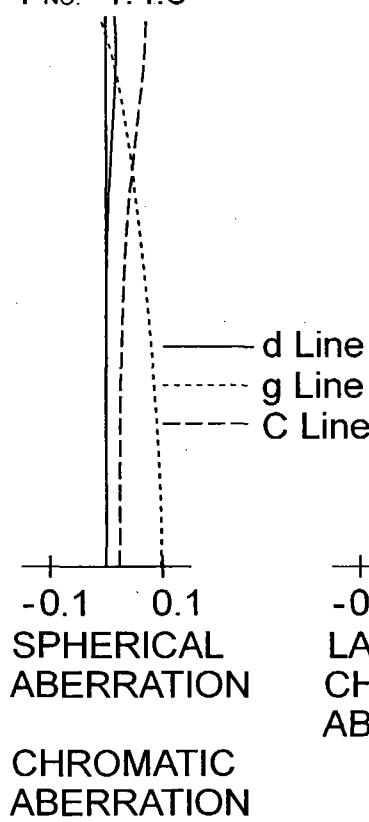
$W=14.0^\circ$

Fig. 14D

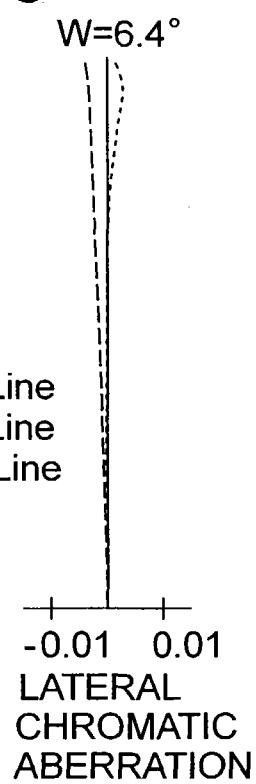
$W=14.0^\circ$

Fig. 15A Fig. 15B Fig. 15C Fig. 15D

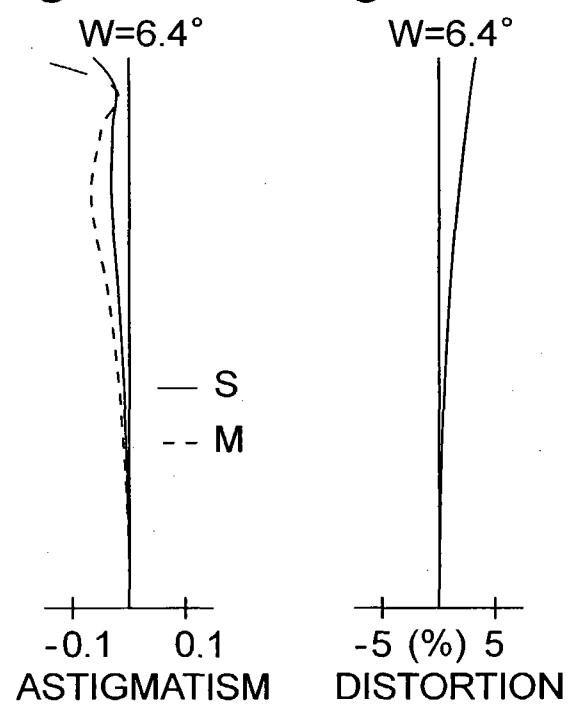
$F_{NO}=1:4.6$



$W=6.4^\circ$



$W=6.4^\circ$



$W=6.4^\circ$

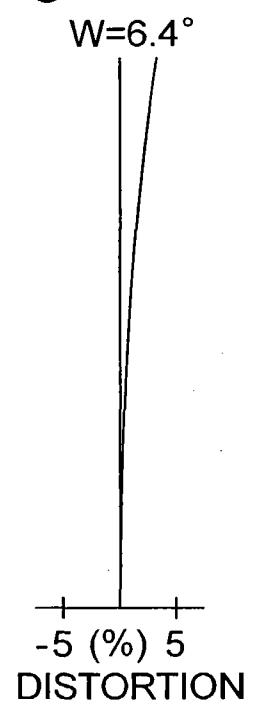


Fig. 16

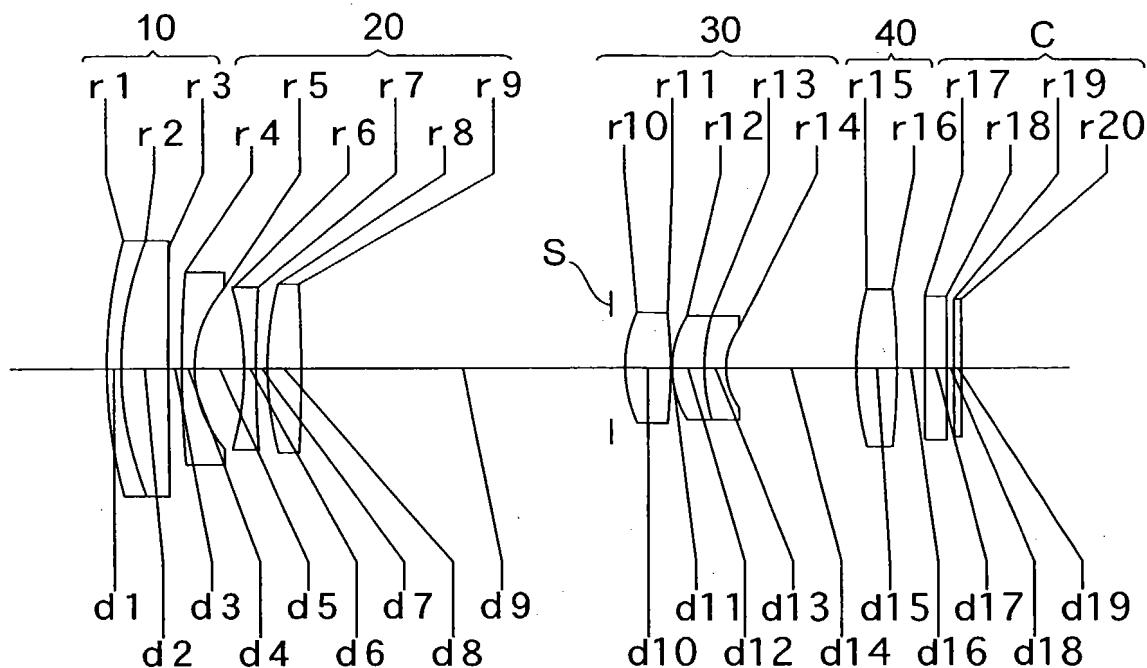


Fig. 17A

$F_{NO}=1:2.8$

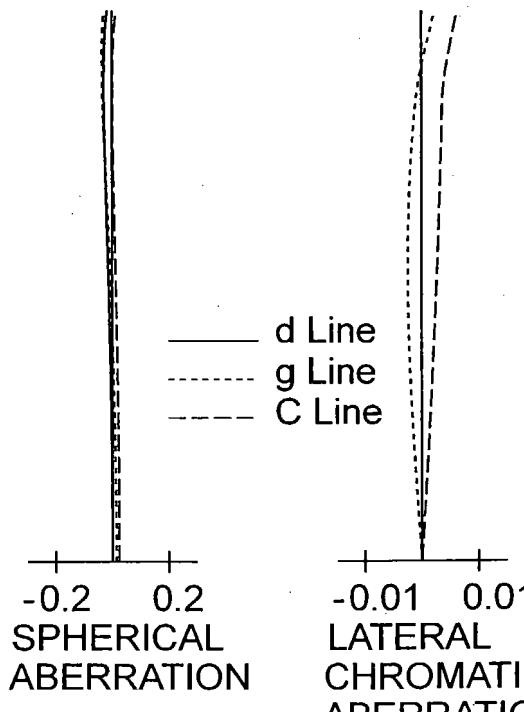


Fig. 17B

$W=31.8^\circ$

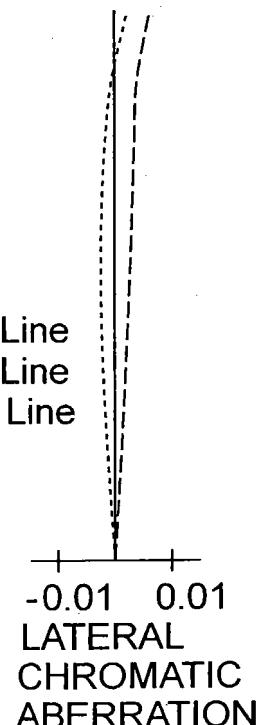


Fig. 17C

$W=31.8^\circ$

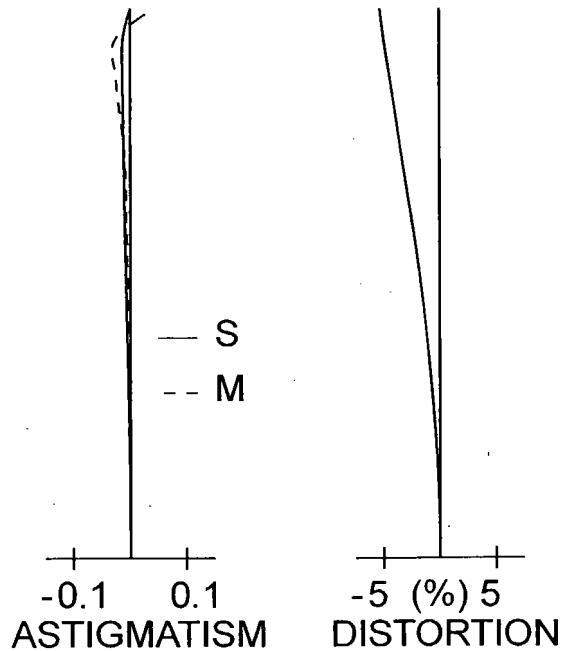
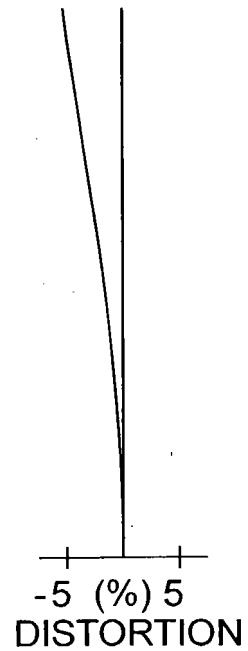


Fig. 17D

$W=31.8^\circ$



CHROMATIC
ABERRATION

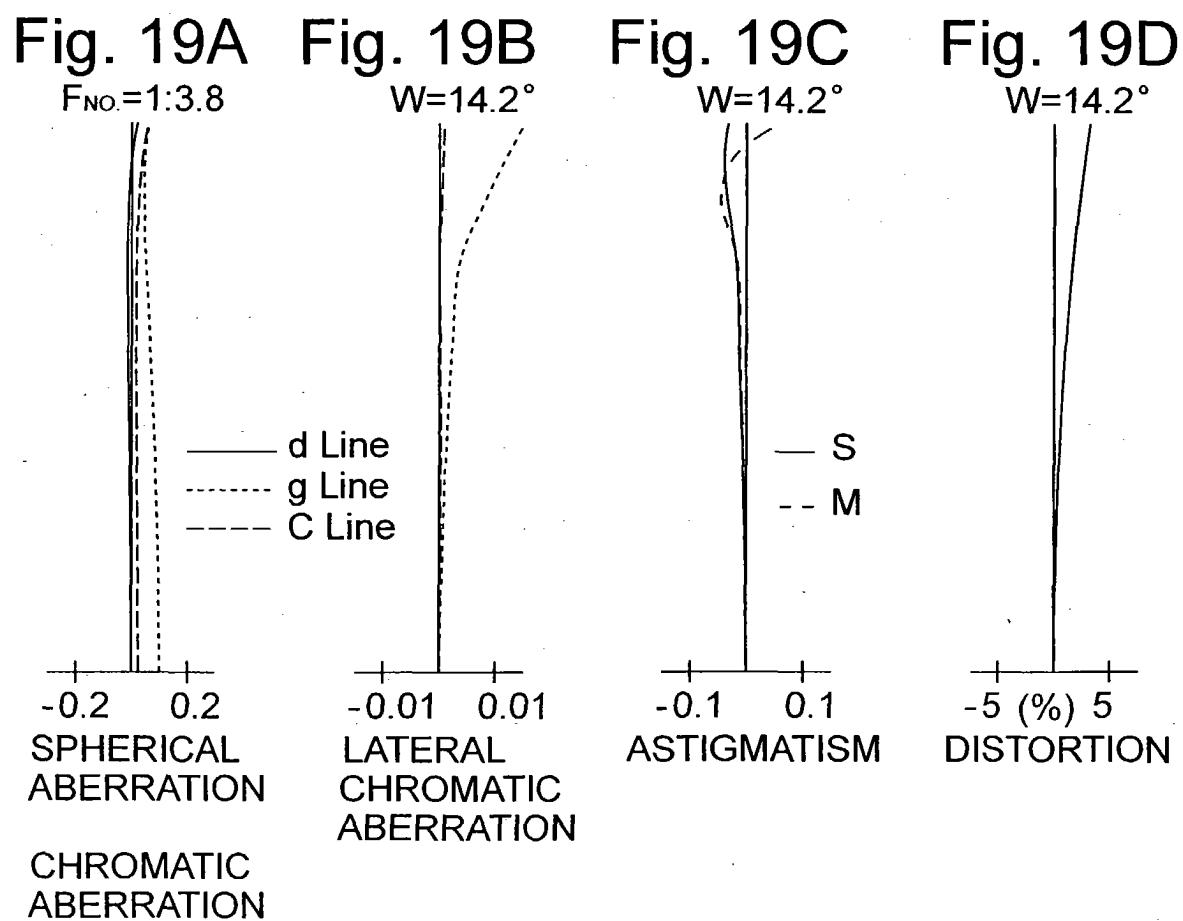
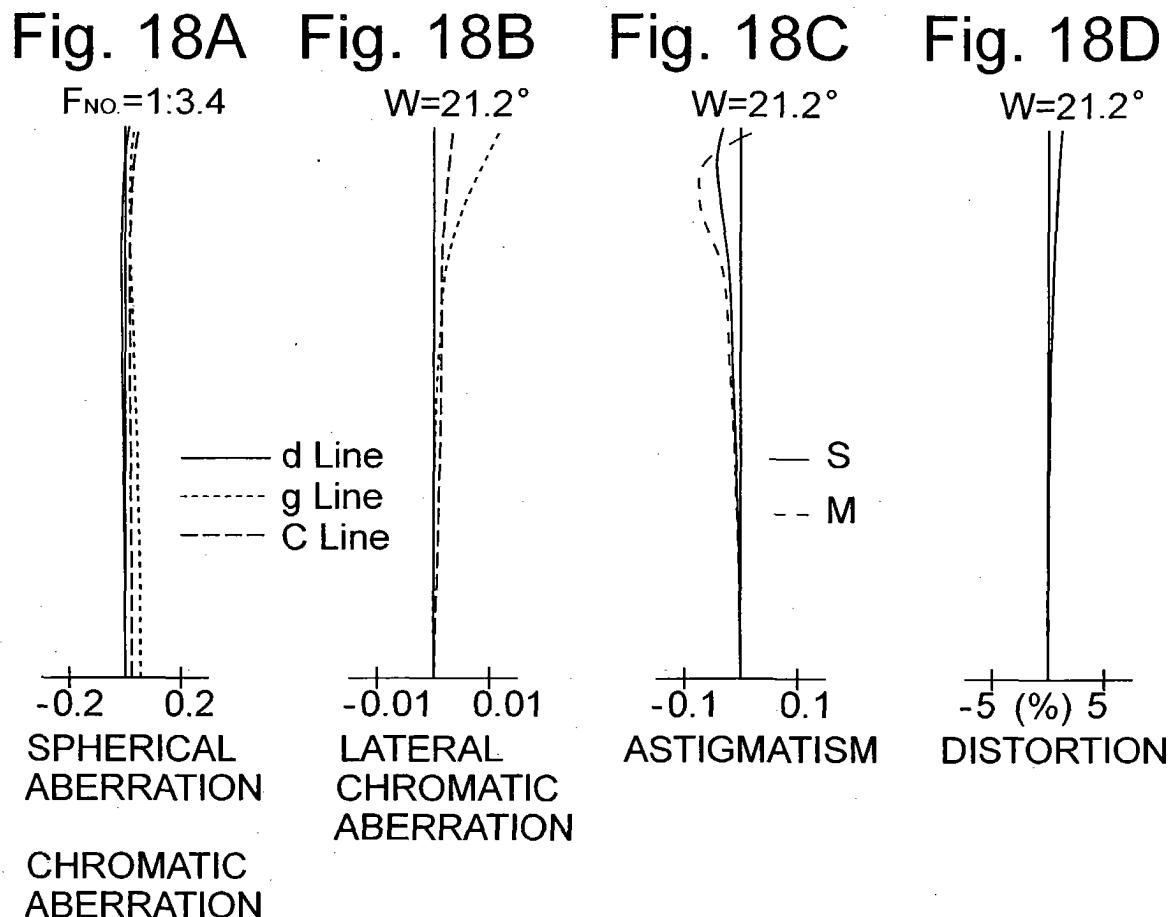


Fig. 20A Fig. 20B Fig. 20C Fig. 20D

$F_{No.} = 1:4.5$

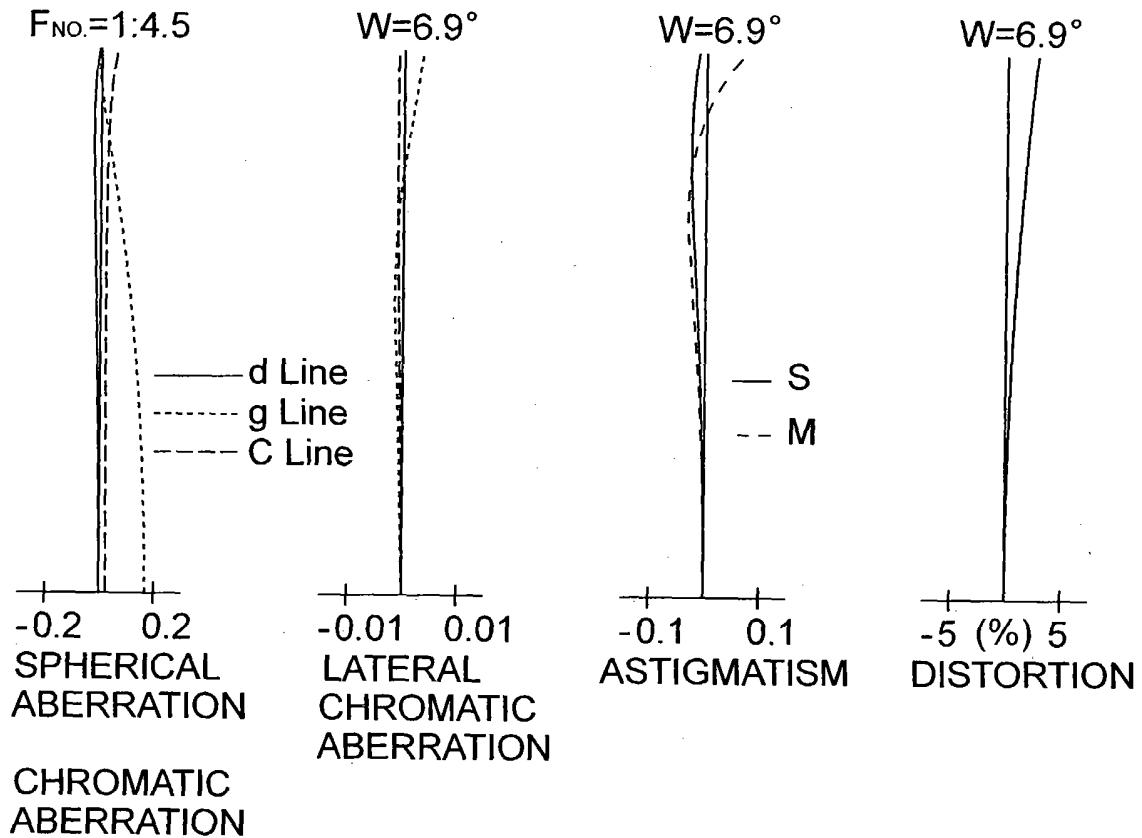


Fig. 21

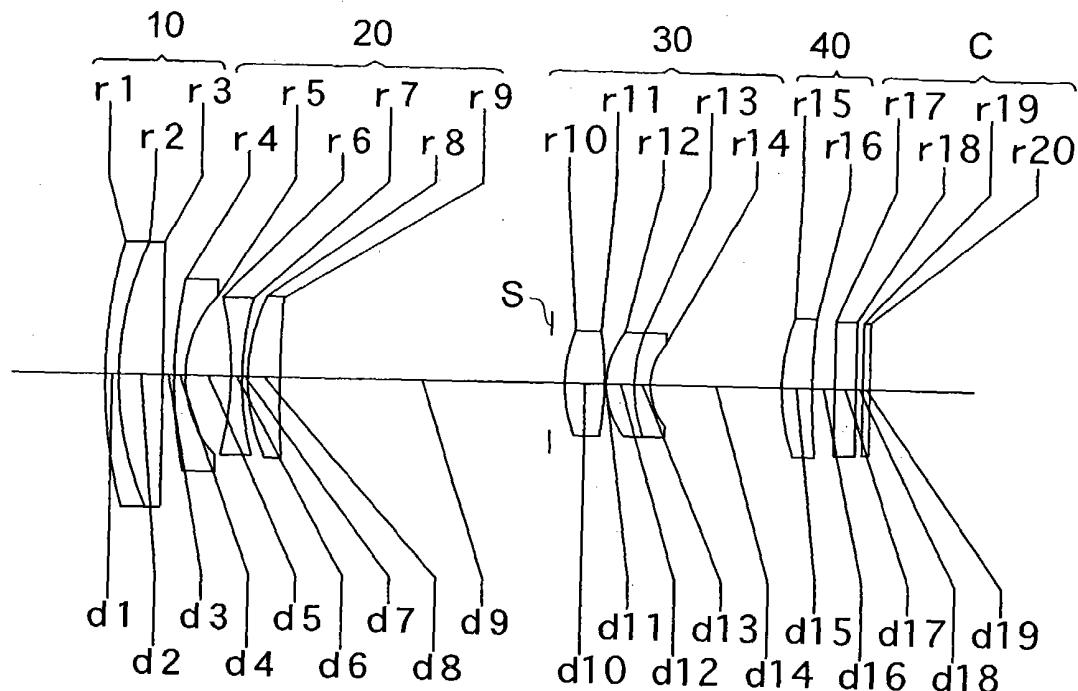


Fig. 22A

$F_{No.}=1:2.8$

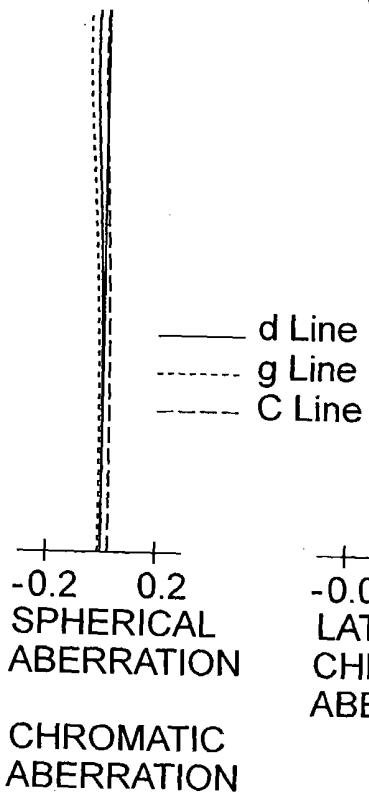


Fig. 22B

$W=31.7^\circ$

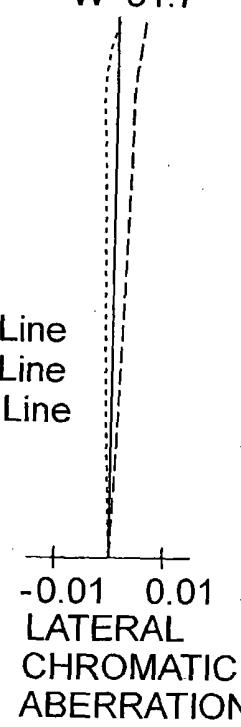


Fig. 22C

$W=31.7^\circ$

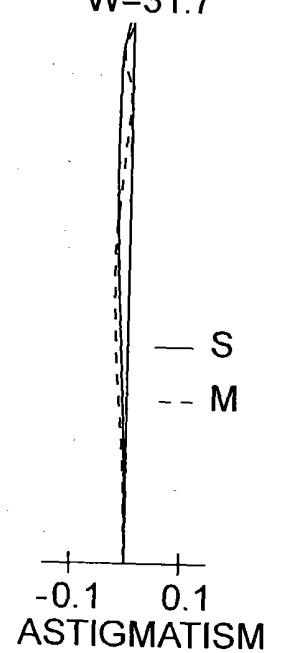


Fig. 22D

$W=31.7^\circ$

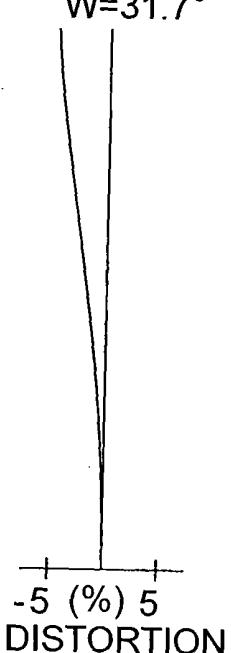


Fig. 23A Fig. 23B Fig. 23C Fig. 23D

$F_{NO}=1:3.2$

$W=20.9^\circ$

Fig. 23C

Fig. 23D

$W=20.9^\circ$

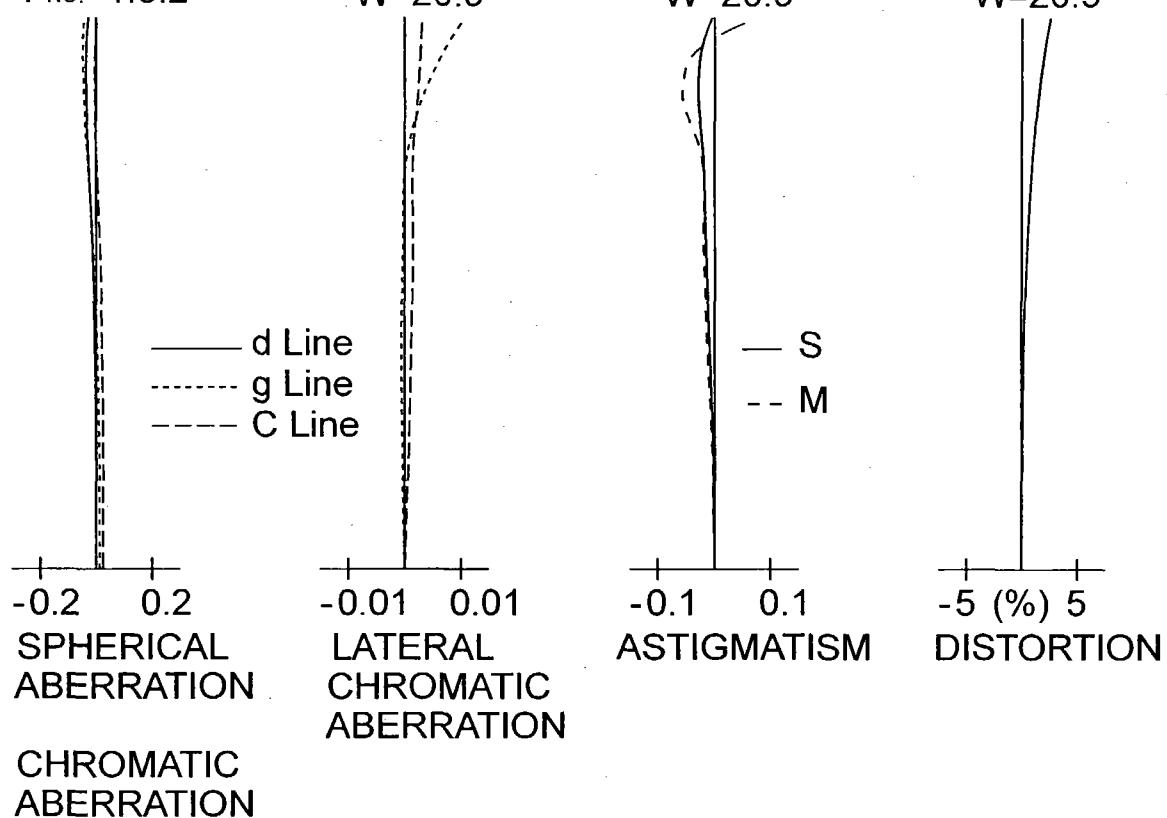


Fig. 24A Fig. 24B Fig. 24C Fig. 24D

$F_{NO}=1:3.6$

$W=14.1^\circ$

Fig. 24C

Fig. 24D

$W=14.1^\circ$

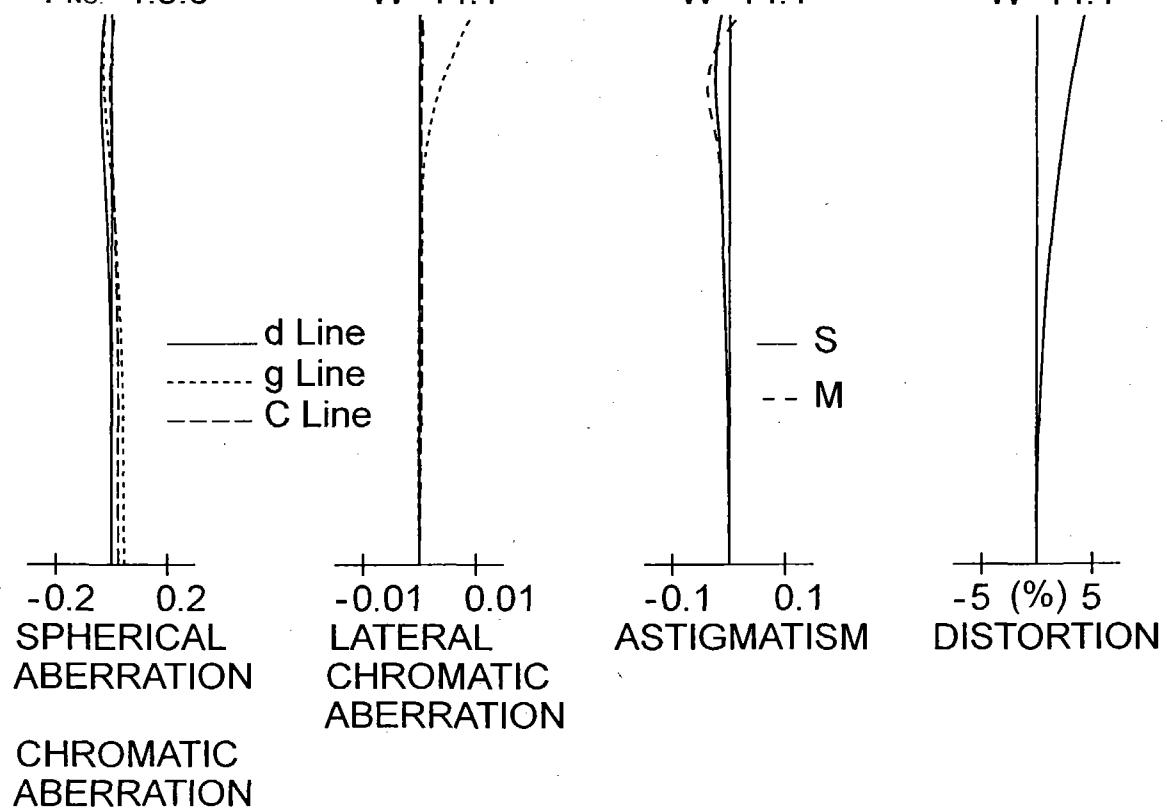


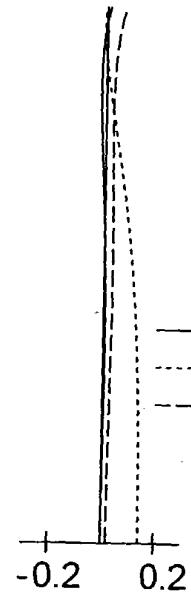
Fig. 25A

Fig. 25B

Fig. 25C

Fig. 25D

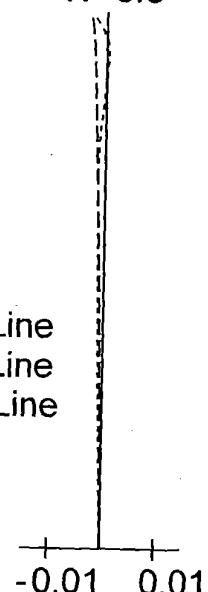
$F_{NO}=1:4.5$



SPHERICAL
ABERRATION

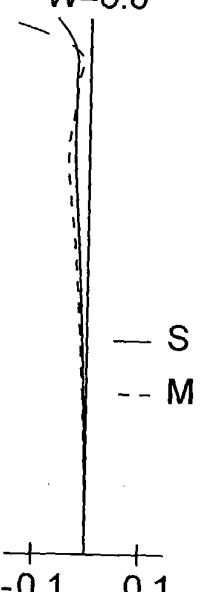
CHROMATIC
ABERRATION

$W=6.8^\circ$



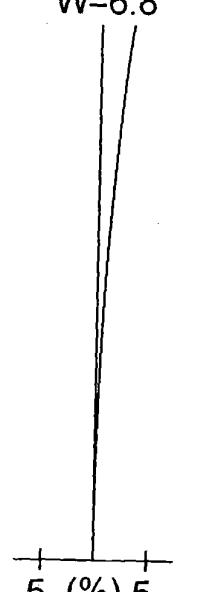
LATERAL
CHROMATIC
ABERRATION

$W=6.8^\circ$



ASTIGMATISM

$W=6.8^\circ$



DISTORTION

Fig. 26

